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WORLD MARITIME UNIVERSITY
Malmö, Sweden

**ILO CONVENTION 185 ON SEAFARERS'
IDENTITY DOCUMENT THIRTEEN YEARS AFTER
ENTERING INTO FORCE:**

Analyzing Implementation Challenges and Future Outlook

By

NTUNGWE VERA NJENG
Republic of Cameroon

A dissertation submitted to the World Maritime University in partial
Fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE
In
MARITIME AFFAIRS
(MARITIME LAW AND POLICY)

2018

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

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ABSTRACT

Title of Dissertation: **ILO Convention 185 on Seafarers' Identity Document thirteen years after entering into force: Analyzing implementation challenges**

Degree: **Master of Science**

Seafarers, by nature of their jobs, are forced to stay for months at a time away from family and friends on board vessels, considered their home and workplace. The opportunity to go ashore provides a mental and physical break from routine and contributes to good health and better attitudes towards their job.

However, several life changing events, notably the 9/11 attacks in USA in 2001 came to change the general attitude towards border security leading to the revision of the Seafarers' Identity Convention No. 108 of 1958 to the Seafarers' Identity Document Convention No. 185 in 2003. The introduction of biometrics in this new convention aimed at facilitating shore leave, transfers and transit at maritime borders while respecting the security requirements of port States. Thirteen years after entering into force, not only is membership scant, many Members of the convention are still struggling fulfilling its requirements.

This dissertation is a study of the challenges in implementation faced by these Members. It also explores some of the reasons preventing more ratifications.

The data for analysis was obtained by exploiting reports of three key ILO meetings held on the convention in 2010, 2015 and 2016 in which issues related to the challenges faced by Governments in implementing the convention were examined. The information obtained was codified into recurring themes, analyzed and interpreted. The analysis and results are presented in chapter five.

KEYWORDS: Seafarers' Identity Document, challenges of implementation, shore leave, security, biometrics

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LIST OF ABBREVIATIONS

C108	Seafarer's Identity Documents Convention, 1958 (No 108)
C185	Seafarer's Identity Documents Convention (Revised), 2003 (No 185)
CPO	Central Processing Office
CSCA	Country Signing Certification Authority
DG	Director General
Doc 9303	Document 9303 on Machine Readable Travel Documents of the ICAO
FAL	Convention on the Facilitation of International Maritime Traffic 1965
FPCC	Focal Point Coordination Centre
ICAO	International Civil Aviation Organization
ILC	International Labour Conference
ILO	International Labour Organization
ILOffice	International Labour Office
IMO	International Maritime Organization
ISPS	International Ship and Port Facility Security code
ISTL	IRIS Smart Technologies Limited
ITF	International Transport Workers' Federation
MBS	Maritime Border Security
MLC	Maritime Labour Convention 2006
MROTD	Machine Readable Official Travel Document
MRTD	Machine Readable Travel Document
MRZ	Machine Readable Zone
NED	National Electronic Database
PKD	Public Key Directory

PKI	Public Key Infrastructure
QC&E	Quality Control and Evaluation
SID	Seafarers' Identity Document
SOLAS	International Convention on the Safety of Life at Sea
TCS	Tata Consultancy Services
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
VIZ	Visual Inspection Zone

CHAPTER ONE: INTRODUCTION

1.1 The seafarers' identity document

Seafaring as part of international shipping is a unique profession. It requires individuals to spend long periods of time (two to six months on average per voyage) far away from home, working and interacting with a group of individuals in a limited environment known as the ship (Utureanu & Dragomir, 2016, p.3) and exposed to various stress factors and dangers. As the human element in an industry that transports almost 90% of the world trade by sea, seafarers provide vital skills and services to maritime transport through navigation, engine operations and fishing in fishing vessels (Yong, 2017, p.2). However, in spite of their immense contribution, the conditions of work for this unique set of workers are often below the required standards due to the temporary nature of their work and the unfavourable bodies of law they may be subjected to (Bauer, 2008, p.643).

The International Labour Organization (ILO), as a specialized tripartite organ of the United Nations (UN) empowered to promote rights at work and enhance social protection of workers worldwide, among other things, is very concerned with the wellbeing and security of the seafarer who has now been under the spotlight since the 9/11 terrorist attacks in the United States of America (USA) in 2001. Indeed, the terrorist attacks exposed a panoply of diverse security issues in different sectors which had never been taught of before or if they had, they had not been acted on.

In the case of the seafarer, discussions prompted by the International Maritime Organization (IMO) at its 22nd General Assembly session and Diplomatic Conference on Maritime Security incited the ILO to revise the 1958 Convention on Seafarers' Identity Document Convention N° 108 (C108) to include security measures geared towards facilitating their shore leave or transit through a country related to the operation of ships (ILO, 2003a, p.1; ILO, 2015, p.2). Hence, the privilege which was granted to the seafarer with little or no regulations until the 1950s (McConnell, 2016, p.18) has now become a very complicated affair. This change was a result of growing security concerns as new flag States emerged with little restrictions to crew nationality combined with political tensions after World War II (McConnell, 2016, p.19). This complexity for access to shore leave led to the proposal of creating an international identity document by the International Transport Worker's Federation (ITF) and the United Kingdom Navigators and Engineer Officer's Union in 1954 to the ILO. This document was to help establish the status of genuine merchant seafarers. The outcome was Convention number 108 on Seafarers' Identity Document (SID) which was revised to Convention number 185 in 2003 to include biometric data after the said 9/11 terrorist attacks.

The use of biometrics to enhance border security was spearheaded by the USA when it passed its Enhanced Border Security and Visa Entry Reform Act in May 2002, eight months after the 9/11 attacks. The said law contained a variety of sections relating to immigration control and called for the integration of a machine readable biometric method of authentication into passports over the period 2003-2006 (Stanton, Chango, & Owens, 2008, p.10). Taking queue from this, the International Civil Aviation Organization (ICAO)¹ through its Technical Advisory Group on Machine Readable Travel Documents (TAG/MRTD), carried out major revisions to Document 9303 Part 2 (Third edition, 2005) to harmonize specifications for machine readable passports, visas and other travel documents and provided, among others, structural features to enhance the security of the said documents (ICAO, 2005, p.I-1).

¹ The International Civil Aviation Organization is a specialized agency of the UN established by States in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention)

However, the ICAO has had several editions since 2005, the latest being the seventh edition of 2015 which is being referred to in the amended annexes to the SID C185 and to subsequent amendments.

1.1.1 Comparing Seafarers' Identity Documents N° 108 and 185

The peculiarity of Seafarers' Identity Document Convention N° 185 (C185) is that unlike its predecessor, it is not directed to States in their role as Flag States (article 2 of C108) but is directed substantively towards their role as labour suppliers (McConnell, 2016), that is, the State of nationality or permanent residence of the seafarer (article 1 of C185). The Maritime Labour Convention 2006 (MLC 2006) has a similar approach. It is the first convention in which the specific category of labour-supplying countries is introduced and it dedicates Regulation 5.3 to specify the responsibilities of labour-suppliers.

Structure-wise, C185 is made up of eighteen articles, that is, four articles longer than C108, and three annexes which are an integral part of the Convention. Following is a brief comparison of the two conventions article by article.

Article 1

The definition of a seafarer is the same in both documents but with regards to interpretation in case of doubt, the competent authority is the one designated by the State of nationality or permanent residence of the seafarer for SID C185 whereas it was not specified in SID C108. In addition, SID C185 can be extended to fishing vessels after consultation with representatives of the fishing sector.

Article 2

Seafarers have the right to be issued with SIDs in conformity with provisions of both C108 and C185 by State parties (Members) to the conventions. In C185, the said identity documents may be issued under conditions prescribed by national laws and regulations for the issuance of travel documents and only to citizens or permanent residents of a country unlike C108 which permitted countries to issue SIDs to nationals from any country regardless if they are nationals or permanent residents of the said country or not.

It may arise that a seafarer possesses SIDs issued under C108 and C185. This may come about where one document was issued by a Flag State under C108 and another from his/her State of nationality under C185. It becomes a problem when the SID provided by the Flag State is still valid. Labour-supplying States will have to be vigilant in this regard.

Articles 3&4 of SID C108 and 3&7 of SID C185

Article 3 in C108 is the same as article 7 in C185 while article 3 in C185 is the same as article 4 of SID C108. Article 3 of C185 is more detailed than article 4 of C108. It specifies, among other things:

- the content and form of the SID with details set out in Annex I, the machine readability and availability of documents to Governments at low cost with difficulty to falsify and that the document is a stand-alone document and not a passport;
- the maximum validity of the identity document being 10 years subject to renewal after the first 5 years for C185 while it was unspecified in C108;
- the inclusion of biometric data in C185 as well as the harmonization of content and form. It is no longer at the discretion of Governments. Seafarers also have access to machines enabling them to inspect non-eye readable data.

While article 3 of SID C108 simply states that the identity document shall be in the possession of the seafarer at all times, article 7 of C185 provides that the document could be placed in the custody of the captain with the seafarer's consent for safekeeping and that it could be withdrawn by the issuing State if the conditions for issuance are no longer met. These conditions are to be drawn up in consultation with representatives of ship-owners' and seafarers' organizations with a chance for the seafarer to appeal the decision.

Article 4 of SID C185 (new)

It sets out how the National Electronic Database (NED) should be operated with details in Annex II. Moreover, a designated focal-point in each country is required to provide the necessary authentication to enquiring countries.

Articles 5&6 of SID C108 and article 6 of SID C185

Article 6 of C185 combines articles 5&6 of C108. The major additions are that reasonable advance notice must be made of the seafarer's arrival to facilitate shore leave and that transit and verification of SIDs shall be at no cost to the seafarer. It is clearly stated in C185 that visas shall not be required for the purpose of shore leave but it is ambiguous in C108. Non-Members of C185 may require visas.

Article 5 of SID C185 (new)

It provides measures for Quality Control and Evaluation (QC&E) of procedures and issuance to maintain quality. Regular reporting is also required at least every 5 years to the Director-General (DG) of ILO with copies to representatives of ship-owners and seafarers' organizations.

Article 8 of SID C185 (new)

Article 8, offers the possibilities for amendments of the three annexes and an opportunity to give written notices in case of reservations and difficulties. The possibility to amend the annexes only is a novelty. Decisions for amendments require a majority of at least two-thirds of the votes of delegates present at the International Labour Conference (ILC) including at least half the Members of C185. Any Member which does not agree to the amendments has six months to give a written notice to the DG of the ILO after its adoption.

Article 9 of SID C85 (new)

This addition to the convention provides the option of provisional application of the Convention by States which have already ratified C108 under two outlined conditions:

- that it is taking measures with a view to ratify the convention; and
- SIDs issued by it under C185 will be accepted if requirements of articles 2 to 5 are met and that it accepts SIDs issued by Members of C185.

Articles 10 – 18 of SID C185

Apart from article 10 which is the last addition stating that C185 revises C108, the rest of the articles are the same as articles 7-14 of C108. These are final provisions giving conditions of entry into force of the convention for Members, when to denounce the convention, notifications of the DG to the Members and communications to the Secretary-General of the UN, how to proceed with the revision in whole or in part of the convention and the status of the convention and its Members should a new revising convention be adopted.

1.1.2 The welfare of the seafarer at the center of it all

It is not possible to discuss the seafarer's identity document convention without mention of the welfare of the seafarer as they are connected. In fact, it is the concern of the wellbeing of the seafarer that led to the discussion and subsequent adoption of C108 in 1958 and C185 in 2003.

The unique working environment of the seafarer has a great influence on his/her psychological wellbeing. He is required to live and work in a confined place, far away from family and friends for prolonged periods exposed to the same physical environment and monotony. The number of environmental stressors present are therefore long-lasting (Doyle et al., 2016, p.199). To break the monotony, shore leave for a seafarer is a necessity. It permits him to interact with a new environment and people and to get medical and psychological care when needed. Unfortunately, these needs are not always considered by port States but also by the changing nature of the industry. Turn-around time is faster, crews are getting smaller and numerous inspections and paper work, among other things, leave little time for relaxation and when some do have time to go ashore, they are unable or discouraged because the ports are far from the nearest cities

and transportation is costly. Very few countries, if any at all, consider the needs of the seafarer when deciding on the location of a seaport.

In customary international law, the right for temporal access to shore can be traced as far back as the sixteenth century in the Laws of Wisby and the Code of Oleron (Lee, 2017, p.970). Nowadays, the ILO is the organization that sets international labour standards. The campaigners of the 1958 SID convention sought for the adoption, under ILO auspices, of an internationally recognized seafarer's passport or similar document in view of the difficulties faced by seafarers with immigration and security regulations of different countries (ILO, 2003a, p.2). Though the final document fell short of their expectations, it still served as a common platform for reciprocal identification by contracting Governments.

The 9/11 terrorist attacks came to aggravate an already difficult situation. The threat of terrorism became more palpable and awareness more acute, prompting radical measures by the USA and with it, dragging many countries along. Border control at several entry points in many countries will never be the same again. The International Ship and Port Facility Security Code (ISPS) of the IMO was rapidly adopted in 2002 and added as a new chapter XI-2 in the International Convention on the Safety of Life at Sea (SOLAS) of 1974 to address maritime security. To facilitate shore leave, access to shore facilities and transit in the face of such stringent security measures, it was necessary that the seafarer could be positively identified and that such identity could be verified, hence the revision of C108 and the introduction of biometrics to create a new convention, SID C185.

Before its adoption, two proposals were made: Creating a Protocol to C108 or a new Convention altogether. Most countries preferred the second option (ILO, 2003b, pp.158-162). Further in time, C185 was not included in the MLC 2006 by reason of its recent amendment and adoption (ILO, 2006a, p.2). Compared to the consolidated conventions in the MLC, C185 was still very new with only four ratifications at the time the MLC was adopted in February 2006. The ILO probably needed more time to observe the workability of the convention.

Convention 185 was adopted in June 2003 at the 91st session of the ILC with 392 votes in favour, 20 abstentions and no votes against (Dolumbia-Henry, 2003, p.130). So far, this convention has thirty-five ratifications, one of which is provisional. When compared with the thirty-nine other ILO conventions on seafarers, C185 is the second most ratified convention, after the MLC 2006, in the first fifteen years after their adoption. Though not satisfactory, this attests to the willingness of Governments to take into consideration the wellbeing of the seafarer while facilitating international commerce and securing their borders.

1.2 Problem statement and motivation

The advantages of using biometrics for identification is unquestionable. In 2010 alone, the US Immigration and Customs Enforcement through its biometrics programme removed more than 392,000 illegal aliens, about 50% of whom were convicted of diverse crimes (“New Zealand to trial biometrics as US immigration hails success of programme”, 2010, p.1). Also, in May 2012, the Dubai's Expertise Centre Identity and Fraud Documents Agency said it caught 1,137 forged documents with its passport readers (Dubai's Golf News, 2012 cited in Gold, 2012).

Member States of the ILO know and recognize the importance of biometrics to enhance safety and security. One would expect, however, that the advantages offered by this revised Convention will attract more ratifications. Nonetheless, it is not the case. Fifteen years after, not only are there few ratifications, many countries are still facing implementation difficulties. So far, only Russia has been declared fully compliant (ILC, 2016, p.523).

The success of C185 is dependent on the ability of member States to be able to authenticate the closed circuit chips embedded in the documents, if not, it has little advantage over the traditional, non-electronic SID. It is therefore imperative to identify and understand the bottlenecks to a smooth implementation.

My motivation to do this research stems from the fact that the international community through the ILO and IMO is trying to unify security measures to facilitate the access of

the seafarer to the shore of whichever country s/he may find him/herself and this can only be achieved through a unified effort of all the stakeholders.

1.3 Objectives

This research aims to:

- a) identify and analyze the challenges behind the implementation challenges faced by Governments and to provide an outlook from the results;
- b) find out what are some of the bottlenecks preventing more ratifications.

1.4 Research Questions

The research will be guided by the following questions:

- a) What are the requirements for the implementation of SID C185?
- b) Are the requirements feasible? Is there a need for change?
- c) What are the factors preventing effective implementation of SID C185?
- d) What are the obstacles preventing more ratifications?

1.5 Methodology

The chosen approach was qualitative as the objective of the research was to identify and understand the bottlenecks to a smooth implementation of the SID C185.

The research questions were answered through secondary data analysis. Reports of ILO meetings held in connection to C185 were studied, codified into recurring themes, analyzed and interpreted. Primary and secondary sources of data from relevant books, reports, instruments, articles, official websites were used to further understand and substantiate on the challenges faced by Governments and other factors that impacted the implementation of the convention.

1.6 Limitations

This research has sought to provide a general overview of the factors that prevent effective implementation of the SID C185 through a secondary data analysis. This is a limitation because obtaining data directly from the sources may have brought out more

challenges and possible solutions. Nevertheless, the study provides essential elements worth considering for both Members and non-Members of the convention.

CHAPTER TWO: MARITIME SECURITY

Before discussing implementation requirements and challenges of C185, it is important to have a discussion on maritime security. Security in general is top on the agenda of most nations, if not all, as it is linked to its sovereignty and the drive to protect its borders. Maritime transport security specifically has evolved over the years, shaped by several landmark events and developed into a major branch of international law influenced by a number of sources paramount among which is the IMO. This chapter will focus on the evolution of maritime security, the influence of major maritime incidents in shaping international and national law and what all these mean to the lay seafarer, unfortunately affected, due to the distinct nature of maritime transport.

2.1 Early work of the IMO

The IMO is a specialized agency of the UN that sets global standards for safety, security and environmental performance of international shipping (IMO, n.d). Created in 1948 at a UN Diplomatic Conference, the treaty came into force in 1958 and has since established itself as a treaty making body with fifty-four conventions in its portfolio. However, SOLAS 1948 and the International Regulations for Preventing Collisions at Sea (COLREGS) 1948 revised pre-existed the IMO. The secretarial duties of these conventions were handed over to the IMO by resolutions A.2 (1) and A.8 (1) in 1959 (Blanco-Bazan, 2004, p.271).

The IMO is made up of five committees. The:

- Maritime Safety Committee (MSC);
- Maritime Environment Protection Committee (MEPC);
- Legal Committee (LC);
- Technical Co-operation Committee (TCC); and
- Facilitation Committee (FAL).

Seven sub-committees assist the MSC and MEPC. The MSC, along with the Assembly and the Council, was one of the main organs established by the 1948 Convention on the IMO and today, it handles all matters relating to the safety of shipping, as well as addresses maritime security issues and piracy and armed robbery against ships (IMO, 2013). This was not always the case. In the beginning, the IMO, through the MSC constrained itself to safety of navigation, restricting its antipollution role to the acceptance of secretarial duties in respect of OILPOL 54² and its amendments (Blanco-Bazan, 2004, p.271; Basaran, 2016, p.3). That focus was nonetheless going to be shaken with the 1985 Achille Lauro hijacking.

2.2 The Achille Lauro incident: the first turning point

As a general rule, human beings tend to be reactive than proactive. It is easier to react to the known than prepare for the unknown. The IMO was no different. Being a young organization still trying to establish itself on the world stage, it had many lessons to learn along the way. The first major lesson was from the Torrey Canyon oil spill. Being more on the observational side, the IMO began taking pollution and the protection of the marine environment very seriously after the 1967 wreck off the coast of Cornwall which spilled about 35 million gallons of heavy crude oil along the coasts of Cornwall, Brittany and Normandy (Blanco-Bazan, 2004, p.271). A former IMO Secretary General had something interesting to say about that incident. Sir Collin Goad, in an interview, observed that the incident and the increased involvement of the IMO in environmental issues as a result, was a “godsend” (M'Gonigle & Zacher, 1979, p.42), and rightly so.

² The International Convention for the Prevention of Pollution of the Sea by Oil, 1954 was the first international convention adopted to regulate pollution of the marine environment by oil. It has been superseded by the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78

Acts such as piracy can be traced as far back as seafaring and the IMO had started doing something about it in the late 1970s by initiating several studies into unlawful seizures of ships, barratry and maritime fraud (Mitropolous, 2005, p.151) and in 1981, the IMO Assembly adopted Resolution 504 (XII) entitled "*Barratry, Unlawful Seizure Of Ships And Their Cargoes And Other Forms Of Maritime Fraud*". The UN on its part adopted, in 1982, the third United Nations Convention on the Law of the Sea (UNCLOS) with seven articles (101 to 107) dedicated to piracy. Everything seemed to be in order until the Achille Lauro incident of October 7, 1985. This occurrence has been written on extensively and I therefore do not feel the need to give a detailed account of what happened. Suffice it to say that the attack was orchestrated by a terrorist group called the Palestine Liberation Front against Israel for the release of 50 Palestinian prisoners held by them (Attard, 2014, p.499). This action was unlike any act of piracy which are acts generally carried out for private ends as defined in UNCLOS article 101, for example theft. The act was geared toward the release of prisoners of a given nationality different from the one in which they were held, giving it a political character. This was what surprised the international community who was not quite sure under which regime to address the crime, sparking a new debate over the provisions governing piracy.

The IMO went to work. On the 20th of November 1985 (IMO, 1985), the Assembly adopted resolution a.584(14) on "*Measures To Prevent Unlawful Acts Which Threaten The Safety Of Ships And The Security Of Their Passengers And Crews*" and the following year it issued MSC/Cir.443 on "*Measures To Prevent Unlawful Acts Against Passengers And Crew Onboard Ships*" with the objective of assisting member States in the application of resolution a.584(14). It did not stop there. In March 1988, the Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA 88) was adopted. This convention provided States parties a license to take the appropriate measures according to their national laws against persons committing unlawful acts against vessels.

2.3 The 9/11 attacks: the second turning point

If the international community thought it had seen it all with regards to security issues in the Achille Lauro incident, it was in for a shock. The USA was victim of a terrorist attack in a scenario that could easily be confounded to a Hollywood dramatic action movie. Over three thousand persons were killed (Attard, 2014, p.510). This incidence exposed a lot of security issues in the USA and provided lessons for other countries. Many countries took measures to reinforce their land and airport entry borders and preventive measures extended to maritime transport which had not yet experienced this form of attack.

The IMO once again reacted to face this new threat. Consultations with IMO member States in the same year of the attack resulted to Assembly resolution A.924(22) on *“Review Measures And Procedures To Prevent Acts Of Terrorism Which Threaten The Security Of Passengers And Crews And Safety Of Ships”* in November 2001 (IMO, 2001). In it, the Assembly called on the MSC, LC and the FAL to review all IMO instruments to ascertain if any updating was needed and to adopt new measures if need be. These committees were also to take into account the work of other international organizations competent in the development of other transport related standards on safety and security by land, air and sea. This led to the review of the SUA convention and its Protocol,³ the introduction of a new chapter in SOLAS 1974⁴ and the revision of C108 which is currently the focus of this study.

Haven gone through the major incidents in history that have changed the world’s conception of maritime security, the next question comes to mind.

2.4 What is maritime security?

Maritime security is considered a buzzword (Bueger, 2015) with no clear definition. It could be said that the definition varies with the context in which it is used. From the

³ The amendments to the SUA Convention and its Protocol were adopted in 2005 as Protocols to the SUA Treaties. These amendments introduced additional definitions to encompass the new realities of acts of violence and provided further measures for cooperation among States among other things.

⁴ The SOLAS Convention of 1974 was rapidly amended in 2002 to include a new Chapter XI-2 on *“Special Measures To Enhance Maritime Security”* in which we find the ISPS Code in order to address maritime security related issues in the wake of the 9/11 attacks

military perspective for instance, maritime security revolves around protecting the territorial sovereignty and integrity from any form of threat or from the shipping operator's point of view, it involves securing cargo and maritime transport so that goods arrive at their destinations incident free (Klein, 2009, p.5).

One of the meanings of security, as defined by the Oxford English Dictionaries, is "the state of being free from danger and threat." Following this line of thought, "maritime security" will involve taking the necessary measures to keep the oceans free from danger and threat. However, the words "danger" and "threat" could mean many things and with a vast and multifaceted sector like maritime transport, many stakeholder interest are involved. Some academics prefer to define maritime security in terms of measures. For instance, Mukherjee & Brownrigg (2013) define maritime security as "those measures deployed by maritime administrations, ship-owners, ship operators and managers, port facilities and offshore installation administrations, and other maritime organizations for protection against unlawful acts such as piracy, armed robbery, terrorism and maritime violence" (p.250). Klein (2009) puts it generally by referring to maritime security as "the protection of a State's land and maritime territory, infrastructure, economy, environment and society from certain harmful acts occurring at, or from the sea" (p.8).

So, maritime security, unlike maritime safety which is focused on the safety of the ship and the prevention of accidents, is concerned with criminal acts perpetrated against the ship and its crew, passengers and/or cargo by human beings and which could extend to land. The seafarer unfortunately finds him/herself in the cross fire as nations, learning from the various terrorist attacks are protecting their countries from threats coming from the sea, for the most part linked to terrorism. This is because, unlike piracy or armed robbery at sea which are geographically constrained and whose motives are private, terrorism is politically driven and has no boundaries. Acts of terrorism could be orchestrated against navigation, fixed platforms in the continental shelf and could even originate from the sea and move to land as demonstrated by the 2008 Mumbai attacks (Ronzitti, 2012, p.33).

A number of reported cases and investigations have revealed the use of commercial and passenger vessels for the transportation of explosives, weapons, ammunition and members of terrorist organizations sometimes with the knowledge and participation of the ship-owner and/or crew. For instance, in 2002, the Captain of *M/V Sara*, owned by a company called NOVA (suspected of being an al-Qaeda “front” company), radioed maritime authorities in Italy informing them of the presence of 15 Pakistani men on-board the vessel whom the ship-owner forced him to take on-board in Casablanca, Morocco. Though the 15 men claimed to be crewmen when questioned by USA and Italian naval officers, investigations linked them to the terrorist group al-Qaeda (Mintz, 2002). In another occasion in 2003, the break-bulk cargo *M/V Dona Julia Inez* transported three Islamic terrorists with complicity of the Captain to the port of Sambo Bonita (Colon), Panama where they were greeted by a Muslim businessman in the Colon Free Zone (McNicholas, 2008, p.257; 2012, p.55). Also, the possibility that ships could themselves be used as weapons for destruction just as the aircrafts in the 9/11 attacks were used is envisaged by some governments.

Unfortunately, these “bad seeds” contribute in making shore leave difficult for honest seafarers in certain seaports who simply need a respite from routine.

2.5 Maritime Border Security

Maritime border security (MBS) is one of the means by which a nation exercises its sovereignty in a bid to protect its population. The intended effect is sometimes pushed to the extreme to the detriment of life offshore. The USA is a good example of such extreme actions mainly because it had been badly affected by the 9/11 attacks. There have been many complaints against the government in this regard. A recent case involving some crew members of Hanjin ships,⁵ docked in US waters, who were refused shore leave made headlines in 2016 (Lee, 2017, p.961). This is because new federal laws instituted after the 9/11 attacks require seafarers to have visas to qualify for shore access in

⁵ These vessels belonged to Hanjin Shipping, a South Korean shipping company which filed for bankruptcy protection on August 31, 2016. For more information <https://www.ioc.com/special-topics/hanjin-shipping-bankruptcy>. Retrieved on September 12, 2018

contradiction of international conventions such as the 1965 Convention on the Facilitation of International Maritime Traffic (FAL 65) of the IMO of which the USA is a Party. A 2017 survey conducted by the Seamen's Church Institute (SCI) in collaboration with the North American Maritime Ministry Association (NAMMA) in various ports in the USA revealed that 9.5% of the 9,886 seafarers surveyed were denied shore leave. 72.9% of the rejection cases were as a result of the absence of a visa. Notwithstanding, this was a significant decrease of 8.7% from the 2016 survey (SCI, 2017).

The United States is not the only country requiring visas to have access to shore facilities. Other countries include Panama, Australia and the Syrian Arab Republic. In Australia, the 2007 Migration Amendment (Maritime Crew) Bill replaced the Special Purpose Visa (SPV) with the Maritime Crew Visa (MCV). Unlike the SPV which was granted to foreign crew on presentation of a valid passport and a document establishing their employment onboard a commercial vessel on arrival, the MCV requires for applications to be made before arrival to Australia to allow for security checks. Plus, it is free of charge (Federal Register of Legislation, n.d).

Other countries, like the United Arab Emirates (UAE) do not require visas to grant shore leave. According to Ministerial Decree No. 569 of 2016 (article 11) of the UAE, Temporary Entry Permits are provided which are valid for 24 hours to foreign seafarers to have access to various shore facilities. The application is made by the vessel's agent to the Immigration Office at the port of arrival only after the vessel has arrived in that particular port (Clyde&Co, 2017).

Parallely, it has been gathered that certain nationalities face particular discrimination in the exercise of MBS (SCI, 2017; ITF Seafarers, n.d), further increasing the frustration for these seafarers. For this reason, section 3G of the FAL 65, which reinforces the ILO SID provisions for the non-requirement of visas for seafarers, underwent amendments (IMO, 2016) which came into force on 1 January 2018. Standard 3.44 adds that:

“Shore leave shall be allowed in a manner which excludes discrimination such as on the grounds of nationality, race, colour, sex, religion, political opinion, or social

origin and irrespective of the flag State of the ship on which they are employed, engaged or work.”

An additional standard 3.44*bis* provides that public authorities shall communicate any reasons to the seafarer concerned and the master for refusal and put it in writing if requested by the seafarer or the master of the vessel.

The MLC, 2006 also reinforces the provisions for shore leave. The objective of Regulation 4.4 is “To ensure that seafarers working on board a ship have access to shore-based facilities and services to secure their health and well-being”.⁶ This is however too general and standard A4.4 does not make any considerable substantiation. Facilitation of shore leave is specifically addressed in Guideline B4.4.6 where it is specifically stated that “Every effort should be made by those responsible in port and on-board a ship to facilitate shore leave for seafarers as soon as possible after a ship’s arrival” (MLC, 2006, p.67,70). Another problem that may arise is actual access to the welfare facilities as aforementioned. More seaports are being constructed far from the cities and there is little collaboration in some cases with ship-owners’, seafarers’ and voluntary organizations to fill in the gap. Guidelines are however soft law, meaning, Members of the MLC are not obliged to follow them but are required to give due consideration.

It is the sovereign right of every nation to protect its borders from all forms of threat. Seafarers unfortunately face discrimination at the maritime border, far less or non-existent in some countries and extreme in others. This partly has to do with what is at stake for each country. While not siding with the aggressive reaction of the USA to the 9/11 attacks, only a nation who has experienced such a traumatic event will understand

⁶ Regulation 4.4 provides that:

1. “Each Member shall ensure that shore-based welfare facilities, where they exist, are easily accessible. The Member shall also promote the development of welfare facilities, such as those listed in the Code, in designated ports to provide seafarers on ships that are in its ports with access to adequate welfare facilities and services.
2. The responsibilities of each Member with respect to shore-based facilities, such as welfare, cultural, recreational and information facilities and services, are set out in the Code”.

certain actions, but there are other ways around to achieve the same goal. The C185 is one of such solutions.

The recent amendments to the FAL 65 are laudable. Countries which are not Members of C108 or C185 but Members of the FAL 65 are under obligation to respect these regulations. This is however no guarantee as some Authorities can find their way around these rules. What needs to change is how seafarers are viewed, from being the threat to security to being allies in combatting crime. Adopting a defensive approach towards seafarers breeds negative feelings of resentment, anger and hostility making some prone to terrorist ideologies thereby opening vulnerable points of entry. Including them, on the other hand, as an integral part of the defense mechanism through fair treatment will motivate them to do the right things and even to go the extra mile to avert crime.

2.6 Summary

The law on maritime security is constantly evolving and unfortunately as much as the maritime sector tries to be proactive, it can only truly learn from errors and incidents of security breaches. However, enforcing security measures at the border is just as important as looking after the welfare of the seafarer. As border security measures and technology advances, so does the mind of the criminal. There will always be threats to national security but nations need to strike the balance between protecting their borders and concern for the wellbeing of this unique set of workers who contribute so much to international trade.

In addition, it has been established that seafaring is one of the riskiest professions one can find and as the years go by it is becoming less attractive for younger generations who are opting for stability and more attractive jobs on land. Facilitating shore leave is definitely one way and an incentive to maintain the supply seafarers.

CHAPTER THREE: TECHNOLOGY

The technological requirement of the C185 is biometrics which is an age old technic of identification. The first known practical example of the use of biometrics was a form of finger printing used in China in the 14th century (Uzoka & Ndzing, 2009, p.1551). Post 9/11, the science of biometrics as we know now was still a very much nascent technology (Jefferson, 2010, p.24). Over the years, biometrics has emerged as the unique function for executing the tasks of accurate identification of persons by their bodily or behavioural traits (Vandommele, 2010, cited in Amirthalingam & Radhamani, 2016, p.381).

Biometrics (Bio-Life and metrics-measure) is generally defined as measurable characteristics of individuals based on their physiological features (e.g face, voice) or behavioral patterns (e.g signature) that can be used to recognize or verify their identity (Ailisto, Vildjiounaite, Lindholm, Mäkelä, & Peltola, 2006, p.325; Bennett, 2000, cited in Uzoka & Ndzing, 2009, p.1550). Other ways of verification and identification can be grouped into: (1) what you have (e.g Debit card), and (2) what you know (e.g passwords, personal identification numbers) (Bolle, Connell, Pankanti, Ratha, & Senior, 2004; Chauhan, Arora, & Kaul, 2010, p.213).

The adoption of an ILO convention with biometric requirements was a first for the organization. It was a move that offered a timely solution to an identification and security problem at maritime borders both for the seafarers and the port State.

The focus of this chapter is on the technical requirements of the SID which has evolved over time. Divided into three main parts, the chapter will cover the technical requirements and challenges of C185 before it was amended, the new requirements of the 2016 amendments and a summary.

3.1 Technical requirements of SID C185 before the June 2016 amendments

Traditional biometric identification systems include face, fingerprint, voice, iris, retina, keystroke, ear, hand geometry, signature and gait. Some new systems include lip-print, tongue-print, electrocardiogram (ECG), and dental radiography (Chauhan, Arora & Kaul, 2010, p.213). However, the identification system chosen by the ILO was the *minutiae-based fingerprint stored in a bar code*.

The materials used, dimensions and placement of data of the said document were to conform to the ICAO specification as contained in Document 9303 (Doc 9303) Part 3 (2nd edition, 2002) ⁷ or to Document 9303 Part 1 (5th edition, 2003) ⁸. Several standards were also taken into consideration during the conception of the biometric capabilities of the SID (ILO, 2006b, p.2). These standards include:

- 1) ANSI/NIST-ITL 1-2000;⁹
- 2) ISO/IEC FCD 19784; ¹⁰
- 3) ISO/IEC CD 19794-2:2005; ¹¹
- 4) ISO 3166-1:1997; ¹²
- 5) ISO/IEC 8859-15:1999; ¹³

⁷ These documents were withdrawn after the release of the new editions in 2006 for Part I and in 2008 for Part 3. Members were however free to use the new versions in lieu of the outdated versions as the portions dealing with the physical layout had not changed substantively (ILO, 2010, p.4; ILO, 2015d, p.6).

⁸ Idem

⁹ American National Standard for Information Systems/National Institute of Standards and Technology - Information Technology Laboratory 1-2000: Data format for the interchange of fingerprint information - table 5.

¹⁰ Information technology - Biometric application programming interface - Part 1: BioAPI specification

¹¹ Biometric data interchange formats - Part 2: Finger minutiae data

¹² Codes for the representation of names of countries and their subdivisions - Part 1: Country codes

¹³ Information technology - 8-bit single-byte coded graphic character sets - Part 15: Latin alphabet No. 9

- 6) ISO/IEC 15438:2001; ¹⁴
- 7) ISO/IEC 9945-1:2003; ¹⁵ and
- 8) ISO/IEC 15415:2004. ¹⁶

3.1.1 Model for Seafarers' Identity Document

Article 3 alongside Annex I cover the model and technical aspects of the document and can be analyzed under three subheadings, Content, Form and System requirements. The contents of the SID were to follow the model provided for in Annex I; the form of the document were to fulfill the requirements of the ICAO documents mentioned above and the system used to obtain the biometric information needed to satisfy certain conditions. It is important to note that the ILO while setting these standards is conscious of the financial burden these requirements might place on Governments but expects nonetheless that minimum quality standards be not compromised.

3.1.1.1 Form

The new identity document with biometric capabilities is a Machine Readable Travel Document (MRTD). It is an alternative to the passport and a stand-alone document to facilitate access to shore and transit of seafarers. The document is to be:

- no larger than a normal passport;
- simple and concise to include all important information with no excess space;
- made of durable material with special consideration for conditions at sea to withstand years of wear and tear;
- machine-readable to facilitate its verification; and
- difficult to falsify (prevent counterfeit and forgery) by using products which are not easily accessible by the general public and judiciously, to be combined with

¹⁴ Information technology - Automatic identification and data capture techniques - Bar code symbology specifications - PDF417

¹⁵ Information technology - Portable operating system interface (POSIX) - Part 1: Base definitions

¹⁶ Information technology - Automatic identification and data capture techniques - Bar code print quality test specification - Two dimensional symbols

specialized manufacturing processes and design systems which will require specialized equipment and expertise.

To reinforce the security features of the document, parties are to include at least one of the following in the fabrication process:

- 1) watermarks;
- 2) ultraviolet security features;
- 3) special inks;
- 4) special colour designs;
- 5) perforated images;
- 6) holograms;
- 7) laser engraving;
- 8) micro-printing; and
- 9) heat-sealed lamination.

Manufacturing these documents to align with the prescription of the “*form*” carries the bulk of the cost as care needs to be taken to ensure their quality and protect their authenticity.

3.1.1.2 *Content*

Compared to the “*form*” requirements, the standards in this section are relatively easy to comply with as it does not require any specialized technology or expertise. The content of the SID can be divided into four parts: the information of the seafarer, information on the issuing authority, unique identification numbers/features and general information.

Information of the seafarer: It was decided during the deliberation of C185 at the 91st session of the ILC in 2003 that the basic information of the seafarer should be maintained as found in C108 in continual respect of the privacy of seafarers (ILO, 2003a, p.6). This information includes:

- a) Full name of the seafarer;
- b) Sex;

- c) Date and place of birth;
- d) Nationality;
- e) Any special physical characteristics that may assist identification;
- f) Digital or original picture of the seafarer; and
- g) Signature of the seafarer.

Information on the issuing authority: The only similarity of this section with C108 is the mandatory mention of the name of the issuing authority. Though the other pieces of information may seem obvious, they were added in the light of the objectives of C185 to ensure uniformity and to prevent ambiguity. The information required here includes:

- a) Name of issuing authority. This would mean a mandatory header with the name of the State of nationality or residence of the seafarer and designated organization responsible for issuing the document;
- b) Contact of the issuing authority (telephone numbers, e-mail address, website corresponding to the focal-point each party has to nominate);
- c) Official stamp or seal of the issuing authority.

Unique identification numbers and features, absent in C108 include information that differentiates one document from the other. They comprise:

- a) Unique document number;
- b) Personal identification number (optional);
- c) Biometric template with fingerprint printed as numbers in a bar code.

General information and features are common to all the documents produced and include:

- a) Date of expiry, the validity of which shall not exceed ten years subject to renewal after the first five years;
- b) Place of issue;
- c) Type or designation of document;
- d) A machine-readable zone;

- e) Two statements: (1) stating the purpose of the document and (2) specifying that the document is a stand-alone document.

3.1.1.3 *System requirements*

The biometric data collection process outlined in article 3(8) provides first and foremost that it be carried out in a way that respects the dignity and privacy of the concerned with no risk to his/her health or discomfort. It further goes on to provide that:

- the biometric information collected shall be visible on the document;
- the equipment used for provision and verification of the biometric is user friendly, available at low cost to governments and can be conveniently operated in ports and on-board vessels;
- the system used for processing the biometric data provides uniform and reliable results consistently to authenticate the identity of the holder.

The choice of the fingerprint for biometric identification at the time fulfilled the expectation of the tripartite consultative body. The finger *image minutiae* and not the finger *image pattern* was chosen as the best fit to achieve application requirements for C185 (ILO, 2006b, p.3) because a majority of the nations that responded to the ILO questionnaire in 2002 (ILO, 2003b, p.74) indicated their intention to use fingerprint data to search against existing government databases which are typically Automated Fingerprint Information Systems databases designed to facilitate searches using minutiae-template based systems (ILO, 2006b, p.12). It was a logical choice as it would gain general acceptance.

The choice of a bar code to store the biometric data (two fingerprint templates) in a two-dimensional PDF417 on the other hand, was based on cost as it was less expensive than the embedded chip storage technology (ILO, 2006b, p.2). This therefore meant less storage space. However, the storage format chosen was based on draft ISO standards dated October 2003 and there were no known manufacturers who had products that supported the standards (ILO, 2004, p.2). Modifications to the products had to be made as a result to meet the standards. The International Labour Office (ILO) of the ILO saw the need to conduct interoperable tests to develop a list of compliant biometric

products for Members to use when implementing the convention and this was accomplished through the ILO SID Biometric Testing Campaign (ILO, 2004).

3.1.2 Interoperability tests

In 2004, the ILO Governing Body adopted the technical standard, ILO SID-0002 Finger Minutiae-Based Biometric Profile for the Seafarers' Identity Documents, with the objective of achieving global interoperability of Members' implemented systems as specified in C185 (ILO, 2004, p.3). However, as earlier mentioned, the ISO standards used were still draft standards and the existing products needed to be modified and tested. In addition, the working environment of the seafarers exposed them to situations which could affect their skin and fingers. It was therefore necessary not only to produce a list of compliant products but also to ascertain that the working conditions of the seafarer have no adverse effects on their skin and fingerprints (ILO, 2004, p.5).

A total of four test campaigns were carried out between 2004 and 2008. The first test campaign was carried out in two phases. Phase one was conducted in a laboratory with a non-seafaring population to do a pre-selection of products that would be used in the second phase to be conducted on genuine seafarers (ILO, 2004, p.6). Seven products were conformant to the required Biometric Interchange Record and the initial interoperability tests requirements (ILO, 2004).

The second phase was conducted on 126 seafarers, both male and female of 30 different nationalities, a wide age range and diverse job descriptions, over the period of September to October 2004 on board the cruise vessel *Crystal Harmony* (ILO, 2004, p.6; ILO, 2005, p.3). Of the seven approved products in the first phase, referred to as Biometric Systems A to G, only two products, A and F attained ILO objectives of 1% false reject report ¹⁷ (or less) at 1% false accept report ¹⁸ and the two products were also the best performing combination of two products (ILO, 2004, p.35).

¹⁷ False Reject Report: Obtained when a genuine test subject attempted to match his/her own biometric interchange record.

¹⁸ False Accept Report: Obtained when an imposter test subject attempted to match his/her data different from his/her biometric interchange record.

While the first campaign proved useful in identifying products that could be used by governments for enrolment and verification of seafarer's fingerprints, the low success rate meant interoperability using the ISO standard may not be as easy as envisaged. Consequentially, it was important to find out why the other products failed the test and if they could be improved on in order to correct the deficiency. For this reason, a second test follow-on study with the same group of products was carried out in 2005 using offline images stored during the first campaign (ILO, 2005, p.2,3). This test involved six of the original seven products. After identifying possible sources of interoperability limitations and the vendors providing new versions of their products, there was a slight improvement in the interoperability test conducted (ILO, 2005, p.4). As a result, a third product, Product C, was added to the list along with the previous two products (ILO, 2005, p.4). The follow-on test also led to the revision of ILO SID-0002 after expert consultation (ILO, 2005, p.11).

The third and fourth campaigns were conducted in Ottawa, Canada in 2006 and 2008 respectively. They added a total of nine new products and two replacement products of previously approved products (ILO, 2006c, pp.1,2; ILO, 2009, p.4) on ILO's list of approved products making a total of twelve approved products.

3.1.3 Challenges of the two dimensional finger minutiae bar code

The ILO had invested in carrying out the various interoperability test campaigns which were fruitful by providing products that governments could use but was unfortunately still not attracting more ratifications as wanted.

In 2006 and 2008, the ICAO released new editions of Doc 9303 Part I (5th edition, 2003) and Part 3 (2nd edition, 2002) respectively. Acting on the concern of ILO on the potential effects of the changes, ICAO in 2009 affirmed that ILO members could still use the new editions in lieu of the former as the physical layout in the new and old editions had not changed in any substantive way (ILO, 2010a, p.4).

The efforts of the ILO were not enough to stop the inevitable changes. In 2010, the ILO held a consultative meeting to discuss, among other things, the challenges faced by

governments in implementing the convention and to examine proposals for improving the technical aspects of the Convention's implementation through the ISO/IEC standard 24713-3 ¹⁹ (ILO, 2010a, p.5). Two main difficulties with regards to the fingerprint stored in a barcode biometric were raised:

- difficulty in identifying suitable vendors to provide the needed equipment by some governments;
- technology was changing from barcode to biometric chip. With the launching of ICAO e-passports, the number of persons holding passports that would potentially have biometric chips was greater than the number of SIDs using the barcode. This was seen as double expenditure (ILO, 2010a, p.12).

With regards to the proposed improvements, there was a general consensus that the technical details of the barcode had to be updated to ISO standards (ILO, 2010a, p.17) as the ILO faced the reality that technology was changing and that most of the border security control standards developed since the last interoperability test in 2008 were no longer available and several of the listed companies no longer existed as independent entities (ILO, 2015a, p.3). This prompted a consultative expert meeting in 2015 in which it was agreed that a chip-enabled SID should be developed and that the biometric should be changed from a fingerprint in a barcode to a facial image (ILO, 2015b, p.15). This meeting was in turn followed-up by an Ad Hoc Tripartite Maritime Committee meeting in 2016.

3.2 Technical requirements of the June 2016 amendments

The ILC adopted, at its 105th session in June 2016, proposed amendments to the Annexes of C185 prepared by the Ad Hoc Tripartite Maritime Committee which met in 2016 (ILO, 2016a, p.3-2/1). The technical model of C185 Annex I had now to conform to the mandatory requirements for an electronic MRTD contained in Doc 9303 (seventh

¹⁹ ISO/IEC 24713-3 on *Biometric profiles for interoperability and data interchange – Part 3: Biometrics-based verification and identification of seafarers* was specially developed by the ISO-IEC JTC 1, a joint technical committee of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) to support the C185 and published in August 2009 (ILO, 2010, p.5).

edition, 2015) on MRTD and to any subsequent amendments. These amendments entered into force on 8 June 2017 but for countries which ratified the convention before it entered into force, a transition period of five years has been provided for the necessary adjustments (ILO, 2016a, p.3-2/7).

The content, form and system requirements provided in Article 3 and Annex I remained substantively the same but for adjustments to replace the fingerprint template in a two-dimensional bar code with a facial image stored in a contactless chip. For this convention, the contactless chip is required to contain only information that is already visible in the visual-inspection zone (VIZ) and the machine-readable zone (MRZ) of the SID plus, data required for the operation of the chip and its security features.

The following section will highlight the biometric changes, discuss the different MRTDs formats and the impact of those changes.

3.2.1 Biometric changes

Based on the new structure of Doc 9303, six of the twelve parts have been directly referred to in Annex I. The following changes have been made:

3.2.1.1 Form

- Physical characteristics are to conform to section 2 of Part 3;
- Printing and typefaces used in the VIZ and the MRZ are to conform to sections 3 and 4 of Part 3;
- A contactless integrated circuit with storage capacity of at least 32 kilobytes is to meet the requirements of Part 9;
- Mandatory Logical Data Structure (LDS) standards to conform to Part 10;
- Encoding and introducing digital signatures following Parts 11 and 12 respectively;
- Protection from fraudulent activities, tampering and photograph substitution according to Part 2.

The security features of the document are different and each SID is to contain at least three of them instead of one as required before the amendments. Details of these features can be found in Appendix A to part 2 of Doc 9303. Some features include:

- 1) optically variable features in the substrate or laminate of the identity document;
- 2) tactile features in the substrate of the identity document;
- 3) laser-perforated features in the substrate;
- 4) microprinted text in the background; and
- 5) ink with optically variable properties.

3.2.1.2 Content

The sole addition to the content is the inclusion of a “chip inside” symbol as described in section 2.3 of Part 9 of Doc 9303. The other details are the same with more precision on how the information is to be presented except for two areas: “*Biometric template with fingerprint printed as numbers in a bar code*” was changed to a “*Machine-readable zone*” and the requirement of an optional “*Personal Identification Number*” was removed.

3.2.2 MRTDs formats

Three options for presenting the SID have been provided for in C185:

- Size 1 Machine Readable Official Travel Document (MROTD) (TD1) described in Part 5 of Doc 9303;
- Size 2 MROTD (TD2) described in Part 6 of Doc 9303; and
- Size 3 MRTD (TD3) described in Part 4 of Doc 9303.

TD1 and TD2 are card formats with different dimensions and specifications with TD2 being larger in dimension than TD1. TD3 on the other hand, is in the form of a book with a page dedicated to provide information about the card holder, issuance, and validity of the document (ICAO, 2015, parts 4, 5, 6).

3.2.3 Impact of the amendments

The amendments to C185 were necessary but not without consequences. Several countries had started or had already put in place structures for the production of the SIDs.

With regards to biometric, the technical background paper prepared in 2015 for discussion at the Meeting of Experts concerning the convention mentions estimates of approximately \$10-30 more in cost to produce identity documents with the facial image stored in a contactless chip (ILO, 2015a, p.17). This cost, however, can only be achieved if the infrastructure used for the issuance of the document is the same as that used for e-passports (ILO, 2015a, p.19).

The change also means additional cost incurred by some governments to acquire complete issuance systems. This will be further discussed in the next chapter on infrastructural requirements.

3.3 Summary

The biometric capabilities of the SID have been drafted with care and consideration for interoperability of the technology and the potential cost for governments. The choice of the barcode was based on the available technology supported by Doc 9303 and some ISO standards at the time while the fingerprint was based on the popularity among countries. Lack of sufficiently available vendors to provide the necessary equipment and the evolution of technology contributed to the difficulty in its implementation. The 2016 amendments were to respond to the technology change and to provide a SID which could be authenticated with the same mechanism as that used for e-passports. Since the June 2016 amendments, the convention has registered a promising four ratifications with the latest in January 2018. Reports submitted for examination by the Committee of Experts on the Application of Conventions and Recommendations will provide valuable information on the implementation of the convention.

CHAPTER FOUR: INFRASTRUCTURE

The last chapter discussed the technical requirements of C185. But for the whole system to succeed, governments need to put in place certain infrastructures. These are specified in articles four and five of C185. Article four is linked to Annex II and article five is linked to Annex III. Just like Annex I, these articles were also amended in 2016. This chapter will discuss the two main structures that have to be set up for the production, authentication, verification and maintenance of the system. It will also discuss the different proposals put forward by the ILO to mitigate cost.

4.1 National electronic database

The NED is covered under article 4 alongside Annex II. The purpose of these provisions is to ensure accountability and follow-up by Members of the delivery of SIDs. Members are to keep a record of documents issued, suspended and withdrawn. In continual respect for the privacy of the seafarer, the database shall contain no more information than that prescribed in Annex II. The seafarer has the possibility to check and confirm the data stored.

The responsibility of the permanent focal-point is to respond to queries from competent authorities of ILO Members to verify the authenticity and validity of SIDs issued by its designated authority. Immigration or other competent authorities of the member State could get information through the focal-point or have direct access to the database depending on the preference of the State. Each Member is responsible to communicate the details of the focal-point to the ILO Office which shall in turn maintain a list to be

communicated to all ILO Members. This is also another important way for competent authorities of each State to ascertain the correct contact information of each focal-point as in the event of doubt, a border officer may not trust the information provided on the SID. It will however be the responsibility of each State to distribute such a list as widely as possible to every border control check point in its country. This will require good communication, transparency, availability of appropriate logistics and cooperation, among other things, within SID issuing Administrations and collaborating Administrations especially the Immigration authorities.

A proposal for a focal-point coordination centre (FPCC) or an ICAO Public Key Directory (PKD) was put forward in the technical background paper for discussion at the Meeting of Experts concerning C185 (ILO, 2015a). The FPCC entailed having a central coordination centre, in collaboration with national focal-points, to respond to inquiries from border agents, visa officers or other competent authorities concerning SIDs. The ICAO PKD provided the same services with the difference that it existed already with e-passports. Members of the ICAO PKD system just had to use the same ICAO Public Key Infrastructure (PKI) ²⁰ digital signature for the SID. During the meeting of experts, preference was given to ICAO PKD (ILO, 2015b, p.13). It should be noted that the ICAO PKD system is not compulsory for Members of C185 but the ICAO PKI is (ILO, 2016b, p.14). The addition of a digital signature nevertheless comes at an extra cost estimated at between \$20,000 and \$100,000 to obtain hardware and software to support secure digital signatures for Members of C185 (ILO, 2015a, p.14).

4.2 Quality control and Evaluations

The purpose of article 5 and Annex III is to ensure that the processes for the production, deliverance and issuance of SIDs is not compromised at any level as well as the maintenance of the database.

²⁰ The Public Key Infrastructure (PKI) enables the creation and subsequent verification of digital signatures on e-MRTD objects to ensure the signed data is authentic and has not been modified (see ICAO, 2015, part 12 p.1).

Regular reports on independent evaluations of systems and procedures of the Administration are to be made by each Member to the DG of the ILO Office at least every five years who shall in turn make it available to other Members.

An important innovation for this convention is the introduction in paragraph 8 of article 5 of a mechanism to produce a list of Members which have complied with the minimum requirements mentioned in paragraph 1 of the same article. This mechanism, which can be compared to the provisions of Section A-I/8 of the Standards of Training, Certification and Watchkeeping for Seafarers Convention 95 of the IMO on quality standards, has the goal to create confidence and acceptance of documents issued by the Members and hopefully non-Members too.

Annex III is comprised of Part A on Mandatory results and Part B on Recommended procedures and practices. While Part A is obligatory, Part B is not but, is to be given due consideration to provide additional guidance to achieve the results required in Part A. Both Parts center the responsibility on the SID-issuing authority irrespective if some of the processes are subcontracted. The alternative measures used by Members will be different for each country.

When compared to Article VI of the MLC 2006 which allows Members to use substantially equivalent measures if they are not in a position to implement the rights and principles in the manner set out in mandatory Part A of the code, nothing of that sort is provided for in C185. Members are not required to indicate alternative measures used to attain minimum results in implementing an SID issuance system required in Part A. This supposes that the focus is on the results.

The five areas for which processes and procedures need to be put in place are:

1. the production and delivery of blank SIDs;
2. the custody, handling and accountability for blank and completed SIDs;
3. the processing of applications, the completion of the blank SIDs into personalized SIDs by the authority and unit responsibility for issuing them and the delivery of the SIDs;

4. the operation and maintenance of the database; and
5. the quality control of procedures and periodic evaluations.

The investment involved in developing a complete SID issuance and QC&E system will depend on the country and whether they choose to produce blank SIDs themselves or delegate it to an enterprise. The cost of an SID issuance system alone depends mainly on the number of enrolment sites and the number of seafarers in each country. A complete system has been estimated to cost anywhere from a few hundred thousand to a few million dollars, aside from the cost for training personnel and maintaining a continuously available focal-point and an up-to-date NED (ILO, 2015a, p.23). Nevertheless, countries which have already invested in producing e-passports according to Doc 9303 and are participating in the ICAO PKD system could spend considerably less if they chose to use the same infrastructure for the issuance of e-SIDs.

4.3 ILO Proposals to mitigate technical complexities and cost

The ILO in the several meetings it has held on C185 since its adoption has put forward a number of proposals to mitigate cost. These proposals will be discussed under two subheadings: International cooperation and National alternatives.

4.3.1 International cooperation

The ILO acknowledged the need for technical cooperation from the beginning as it adopted a resolution in this regard at the same time it adopted C185. In it, the ILO encouraged Members to agree among themselves on measures of cooperation to share technology, expertise and resources and for countries with advanced technology to assist Members with less advanced technology (ILO, 2003c, p.108). It also availed itself of its resources for Members who required assistance. In line with this resolution, the ILO has put forward the following proposals:

4.3.1.1 *A global, shared procurement system*

This proposal was put forward in 2010 (ILO, 2010, p.10, 11) and 2015 (ILO, 2015, p.24). In this system, the ILO is to play a central role in facilitating the global procurement of the components of an SID issuance system including enrolment stations, printers and central

issuance software, in conjunction with countries with good expertise in IT systems and procurement. The hardware and software components agreed on will then be made available to interested countries at a fixed price provided by the successful bidder(s). If many countries partake in this procurement system, there would be economies of scale resulting in less expenditure. An added advantage of this procurement system is that independent evaluations would be simpler as the hardware and software elements will be almost identical for participating countries.

4.3.1.2 *A regional, shared SID system*

Here, groups of countries could work together to build SID issuance systems, focal-point centers and regional electronic databases for all collaborating countries. Nevertheless, each country will be responsible for deciding on the eligibility of its seafarers before their enrolment. The printing of SIDs will be done at the central facility hosting the system which will also store each country's NED in separate data silos and available to each focal-point. The success of this system will reduce cost and facilitate independent evaluations, which in this case, will only take place at the central site.

4.3.1.3 *Donor donates its own SID system*

This system relies on the good will of a donor country. The SID system will be developed in the donor country from which it will make copies of its software available to other countries for free. The countries benefitting from this donation should find it much easier in implementing C185. Software independent evaluations will also be made easy in the countries using the same software.

4.3.1.4 *Donor funded independent development of a SID system with independent intellectual property*

This proposal seems like the ultimate solution. It entails a donor country or group of donor countries to sponsor the development of an SID issuance system, including enrolment, printing, stock control and a NED from scratch by a third party. The intellectual property of the software could then be transferred to the ILO which will make it available to Members of C185. The estimated cost is between one to three million USD. Like the

previous proposals, independent evaluations will be simpler and quicker. There will be a sole initial evaluation of the software at the ILO and the results will be used as the basis for subsequent evaluations in benefiting countries. The net results for the countries is less cost and better implementation of C185.

Unfortunately, there was no feedback from the report on these four proposals, which were under Option A-7 of the 2015 technical background paper. These options are however still available to Members and several options can be used together.

4.3.2 National alternatives

These proposals, presented under Part III of a technical background paper (ILO, 2016c) focuses on how Members could organize their national SIDs issuance processes.

4.3.2.1 *Production of the SID by the SID issuing authority itself*

In this option, the issuing authority will be responsible for the entire process from the receipt of the application to production and deliverance. For countries which intend to participate in the PKD, they will have to bear the full cost of participation. The advantage of this option is that the issuing authority has full control and access to the system.

4.3.2.2 *Production of the SID by the e-passport issuing authority*

The second option will be to delegate the entire issuance process to the national e-passport issuing authority for countries issuing e-passports. This is to prevent a country from spending twice to participate in the PKD. The disadvantage is the loss of control by the SID issuing authority as it will have to delegate its functions to another authority in the same country coupled with the lack of training of e-passport issuing personnel in verifying seafarer information. This could be solved if the two authorities share responsibilities with regards to their specific domains.

4.3.2.3 *Enrolment of the seafarer by the SID issuing authority with production of the SID being contracted*

The last option proposed by the ILO in this regard entails the issuance of SIDs by an SID issuing authority but subcontract parts of the process to an independent entity outside

the control of any one ILO Member. This is not intended to compromise the fundamental duties of each Member to secure the process. The independent entity, which could be called a Central Processing Office (CPO), has the possibility to offer its services to more than one national e-SID issuing authority. The CPO will only need to develop issuance software. This option will not only reduce Member expenses in developing an issuance system but also the cost in managing the PKI. The downside will be to find a willing entity to take the role of a CPO.

The position of the ICAO

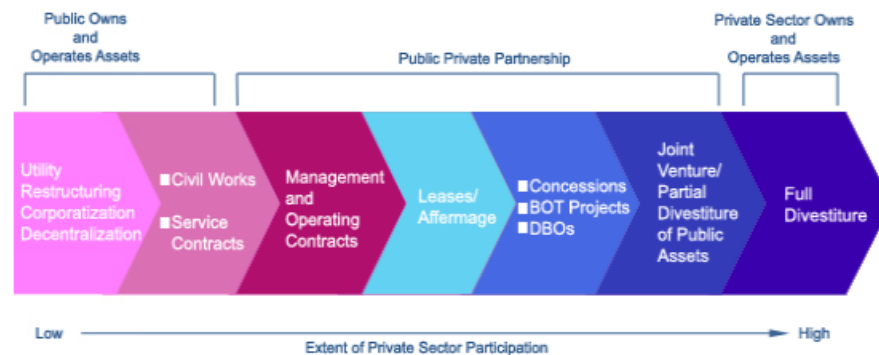
The ICAO, at the request of the ILO, provided technical advice on the abovementioned three options. The first option was rejected on the basis that ICAO did not allow more than one participant per country in the PKD, in the case where the country is also producing e-passports, mainly for security reasons. The third option was accepted on condition that the ILO took the role of the CPO in collaboration with the United Nations Laissez-Passez issuing authority in order to use its Country Signing Certification Authority (CSCA). The United Nations, however, rejected that suggestion to use its CSCA for that purpose (ILO, 2016b, p.7). The second option was fully approved by ICAO, encouraging the division of responsibilities between the e-passport and e-SID issuing authorities.

While the second option was well received, especially by countries which participated already in the PKD, others expressed their reservations. Bangladesh, for example, was concerned that collaboration between the passport and SID issuing authorities will cause more delays (ILO, 2016b, p.9). Unfortunately, there are no “one size fits all” clear cut solutions. What could be beneficial to one country may have an opposite effect on another.

4.3.2.4 *Public Private Partnerships (PPP)*

This option was not considered by the ILO but is supported under Part B of Annex III of C185. Strict monitoring by the SID issuing authorities is however required. According to the PPP Knowledge Center, a PPP is "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party

bears significant risk and management responsibility, and remuneration is linked to performance"(World bank, n.d). The figure below depicts a spectrum of PPP contracts.



For a summary of each type of arrangement and sample agreements, see:

- **Utility Restructuring, Corporatization and Decentralization**
- **Civil Works and Service Contracts**
- **Management and Operating Agreements**
- **Leases / Affermage**
- **Concessions, Build-Operate-Transfer (BOT), Design-Build-Operate (DBO)**
- **Joint Ventures and Partial Divestiture of Public Assets Full Divestiture**
- **Full Divestiture**

Fig 5: Spectrum of PPP contracts. Retrieved from <https://ppp.worldbank.org/public-private-partnership/agreements>

Some Governments, such as India (Ministry of External Affairs, 2017) and Nigeria (IRIS Smart Technologies Limited, n.d) have resorted to PPPs in the issuance of national e-passports.

For India, a PPP was signed between Tata Consultancy Services (TCS) in 2006 under the National e-Governance Plan and the Ministry of External Affairs. Its role was to set up and manage the Data center and disaster recovery operations. In this line, it handles passport applications, takes biometrics, does office networking and takes care of the citizen portal, among other duties (TCS, n.d). The Ministry of External Affairs on the other hand handles sovereign functions such as verifying, granting, issuing, revocating and

impounding passports (Ministry of External Affairs, 2013). So far, the PPP is a success story.

In the case of Nigeria, the private partner, IRIS Smart Technologies Limited (ISTL) designed, supplied, installed, tested, commissioned and now operates, supports and maintains the complete e-passport system at its own expense since 2007 when the PPP was signed. Compensation is obtained from issuing passports. The personnel are however supplied by the Nigerian Immigration Service who is responsible for registering applications, personalizing and issuing passports, dealing with daily queries and managing the passport inventory. The Central Data Center, which can be compared to the NED for e-SIDs, is hosted in the ISTL facility and includes the PKI. This partnership is clouded with the concern of the CSCA being in the control of ISTL which jeopardizes the national security of the country (D'Albore, 2017). As of July 2017, the Government is seriously considering the local production of the passports (Nigeria Politics Online, n.d). Until then, the PPP with ISTL is still ongoing.

Each country has its own rules, laws and framework and therefore decides on what works best for it. The e-SID is relatively new but PPPs are definitely workable as can be seen in the examples from which inspiration and lessons can be drawn.

4.4 Summary

The infrastructure prescribed by the C185 is very appropriate to achieve its objectives. But as much as many countries acknowledge that, the investments and technical complexities cannot be ignored. Technical cooperation has nonetheless been strongly encouraged by the ILO, from sharing technology to outsourcing certain processes and even proposing a global procurement system. PPP is another option worth exploring. The essential is, whatever option a country decides to use, it will have to fulfill its obligations under articles four and five of C185. Security should in no way be compromised.

CHAPTER FIVE: PRESENTATION OF FINDINGS

The objective of this dissertation is to understand and analyze the challenges faced by Members of C185 in its implementation. The main sources of information for this analysis are the ILO reports of three key meetings held on the convention after its adoption. These meetings have discussed issues related to the challenges faced by Governments in implementing the convention and on strategies to increase the number of ratifications. They are:

1. Consultations on the Seafarers' Identity Document Convention (Revised), 2003, (No 185) held 23 – 24 September 2010;
2. Tripartite Meeting of Experts on the Implementation of the Seafarers' Identity Document Convention (Revised), 2003, (No 185) held 4 – 6 February 2015; and
3. Ad Hoc Tripartite Maritime Committee established for the Seafarers' Identity Document Convention (Revised), 2003, (No 185) held 10 -12 February 2016.

5.1 Data analysis

The first step in analyzing the data was to draw up a table which classified the relevant information as shown in the table presented in Annex I. The data was then further broken down as follows:

5.1.1 Attendance

Column two of the table presented in Annex I is a list of the countries which attended one or more of the three meetings. A lot of information can be obtained and deduced from

this column. Of the 68 countries represented as percentages in figure1, 20 are Members of C185, 24 are Members of C108 and 24 are non-Members to either conventions. When compared to the total number of Members of C185 and C108, the total attendance of Members of C185 against non-attendance (figure 2) is higher than that of Members of C108 (figure 3). This is an indication of the degree of interest, priority or importance placed in the convention by ILO member States.

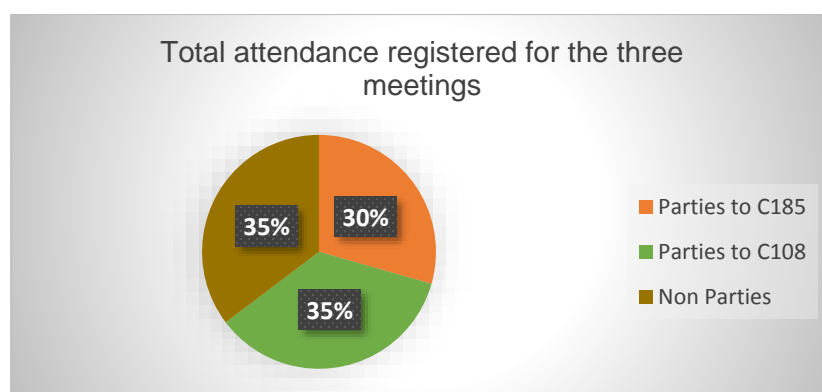


Fig.1: Total attendance registered for the three key ILO meetings on C185



Fig.2: Attendance registered of Members of C185 which attended any meeting against Members which did not attend any

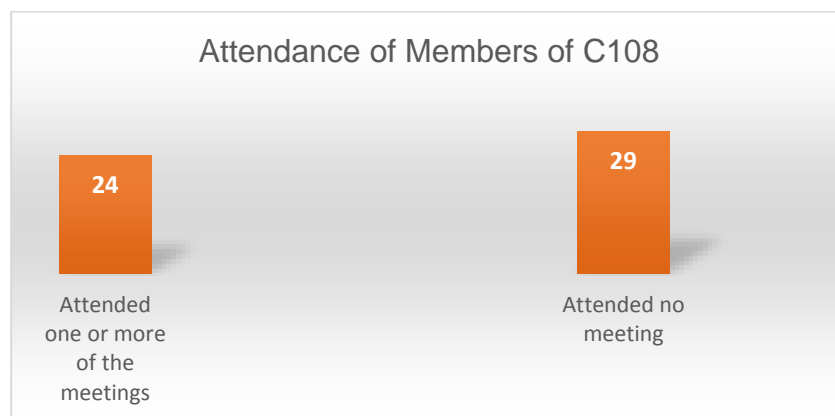


Fig.3: Attendance registered of Members of C108 which attended any meeting against Parties which did not attend any

The bulk of attendance was registered in 2010 at 51 countries. This dropped to 25 in 2015 and increased to 37 in 2016. Forty-three countries which attended the 2010 meeting were non-Members of C185. Since then, ten ratifications have been registered in a space of 8 years. This is encouraging considering the biometric challenges and financial engagement in maintaining the SID issuance system. Also, a majority of one-time attendances was registered in 2010 (twenty-one), followed by 2016 (twelve) and lastly 2015 (three). Figure 4 shows the frequency of attendances from the three meetings. Interestingly, the majority of the 15 consistent participants are Members of C108 (Canada, Latvia, Liberia, Norway, Panama, Spain and the United Kingdom) followed by Members of C185 (France, Indonesia, Marshall Islands, Philippines and Russia Federation) and lastly non-Members of either convention (China, South Africa and the USA). One would have expected that more Members of C185 would be interested in improving the convention and finding ways to facilitate its implementation.

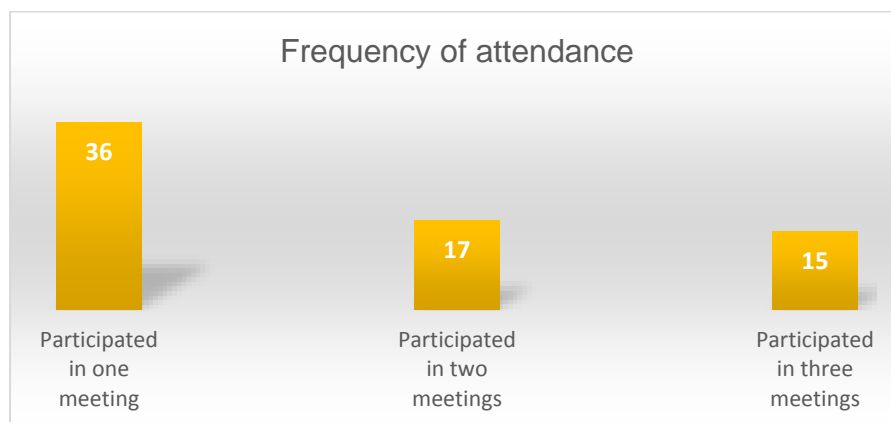


Fig.4: Frequency of registered attendance

So far, only 10 countries have automatically denounced C108 by ratifying C185 which is relatively low. This is not totally negative as Members of both C108 and C185 have the obligation to recognize SIDs issued under C185. The downside to this, however, is that there is no real advantage of SIDs issued under C185 over C108 since both documents are accepted but Members of C185 have to spend more for the same privilege.

5.1.2 Implementation Challenges

Column eight of the table presented in Annex I represents a list of difficulties faced by Members of C185. These were presented as far as possible in the exact wordings and order presented in the reports. The next phase was to categorize synonymous alternative phrasings directly relevant to the topic represented by different colours and the frequency with which they were mentioned. This categorization produced four themes (table 1).

Unfortunately, very few participants voiced the difficulties faced by their countries. This is probably because most of the other participants identified with the issues and did not see the need for repetition. Nevertheless, from those that did, a hierarchy of difficulties was established as follows:

1. Restricted access to shore by some port States;
2. Financial and Technical difficulties;
3. Legislative and Administrative issues; and

4. Few ratifications.

Implementation challenges				
N°	01	02	03	04
Theme	Financial and technical difficulties	Restricted access to shore by some port States	Few ratifications	Legislative and administrative issues
Frequency	03	04	01	02

Table 1: Classification of the implementation challenges faced by Members of C185

The financial and technical aspects have been dealt with in chapters three and four. The focus shall be on points 1, 3 and 4.

5.1.2.1 *Restricted access to shore by some port States*

Restricting access to shore by port States is a challenge for Members of C185. This is because after overcoming the technical and financial barriers to issue SIDs, it is frustrating to find out that their efforts are not yielding the required fruit, that is contributing to facilitate shore access for their seafarers when they call at foreign ports. Bangladesh, for instance, complained that some of its seafarers were refused shore leave in some ports because it was not in the list of States that had ratified C108. Other Members that had similar complaints include Indonesia, Korea and Russia. No specific countries were pointed out. Generally, typically restrictive countries include the USA and Australia. It has also been reported that seafarers faced shore leave challenges in the Schengen area of the European Union (EU) (ISWAN, 2013). Currently, the EU is in the process of revising Regulation No 810/2009 of the European Parliament and of the Council of 13 July 2009 establishing a Community Code on Visas to respond to present security and migratory realities. Hopefully, with the proposals of the European and International Social Partners

in the maritime sector ²¹ (ECSA, ETF, ICS & ITF, 2018), the final regulation will be more favourable towards seafarers and boost the commitment of Members of C185.

5.1.2.2 *Legislative and Administrative issues*

Legislative procedures and Administrative organizations vary from country to country. Legislative difficulties are mostly linked to the relationship between national law and public international law (PIL). There are two approaches in this regard: Monism and Dualism.

A monist State views PIL and national law as a single system of law, whereas the dualist State views the two as separate and distinct systems existing alongside each other (Ferreira & Ferreira-Synman, 2014, p.1471). In a pure monist State on one hand, PIL is directly enforceable and in a pure dualist State on the other hand, PIL has to be translated into national law. Legislative difficulties will most likely be faced by dualist States where international law has not been domesticated and is in conflict with national law. This affects implementation of C185 in such countries as it cannot be enforced. To avoid such difficulty, some countries adapt their national laws to international law before ratifying the necessary conventions. Canada for example is a Member of C108 but is issuing SIDs in compliance with C185 and is envisaging developing regulatory instruments in this regard (ILO, 2015b, p.4). If or when it ratifies C185, it will not face that challenge as there will be no conflicts of laws.

Administrative wise, the challenge may stem from inter-ministerial or inter-departmental collaboration. Bangladesh in the meeting held in 2016 expressed concern on this issue fearing further delays in implementation of the convention if passport and SID issuing authorities had to collaborate. As mentioned in chapter four, the issuance of SIDs may need the intervention of one or more ministries or departments. Whereas this collaboration may work in some countries, it may be very difficult or absolutely impossible

²¹ Looking after seafarers' welfare, the European and the international Social Partners in the Maritime Sector which contributed a proposal to the Commission of the European Union in December 2017 are the European Community Shipowners' Associations (ECSA), the European Transport Workers' Federation (ETF), the International Chamber of Shipping (ICS) and the International Transport Workers Federation (ITF). The proposal advocated for seafarers to be grouped as special Professional travelers

in others. Countries in such situations have to work harder to ensure successful implementation of the convention. Administrative challenges could also be as a result of bureaucracy slowing down processes.

5.1.2.3 *Few ratifications*

This challenge may have been mentioned just once but it is not any less important. The Republic of Korea had indicated in the 2010 meeting that it had not issued any new SIDs since it ratified C185 in 2007 principally because major port States had not ratified the convention. According to the United Nations Conference on Trade and Development (UNCTAD) Handbook of Statistics, Asia is by far the largest trading region followed by Europe, North America, Latin America and the Caribbean, Africa and finally Oceania (UNCTAD, 2017a, p.72). This will place some Asian countries among the major port countries in the world. Based on the UNCTAD Review of Maritime Transport ranking of the top 40 container terminals in the world for the year 2016, China tops the list with 13 terminals, followed by the USA with 5 terminals, Spain, Germany and Malaysia follow with 2 terminals each and the rest with one terminal each (UNCTAD, 2017b, p.65). In total 13 Asian port States, 6 European port States, 1 North American port State and 1 South American port State were represented in the list. However, this is only indicative as it is based solely on container terminals.

This is significant because if major port States are not Members of C185, it may be discouraging to Members of the convention which, at this point, is too late for they now have obligations which must be fulfilled. China and the USA are Members of neither C108 nor 185 but have participated in all the three ILO meetings under scrutiny. It can only be hoped that these, and many others, will not only acknowledge the importance of C185 but take further action by ratifying the convention.

5.1.3 Obstacles to ratification

While the focus of this dissertation is on the implementation challenges of C185, it is also important to look at factors that discourage countries from ratifying the convention. Table 2 below presents the obstacles along with the frequency with which they were mentioned. The first three factors are the same as the first three challenges mentioned in table 1.

Factors one, two and three of table 2 have a higher frequency than in table 1 indicating higher participation of non-Members in expressing their concerns with regards to ratification.

Obstacles to ratification					
N°	01	02	03	04	05
Theme	Financial and technical difficulties	Restricted access to shore by some port States	Few ratifications	Visa requirements	Requirement of article 6 a barrier to ratification
Frequency	08	05	02	01	02

Table 2: Classification of obstacles to ratification by non-Members of C185

The factors on *Financial and technical difficulties*, *Restricted access to shore by some port States* and *Few ratifications* have similar explanations to those provided for under challenges in implementing C185 but with the difference that they are reasons some countries will not ratify the convention.

With regards to the factor on *Visa requirements* by some countries such as the USA, Australia and Panama, Norway was clear that this was one obstacle for it and called for dialogue with such countries. Certainly, this stance is shared by many more countries. Norway, in the meantime, intended issuing SIDs in compliance with C185.

Finally, for the fifth factor, countries such as Panama and the USA were restricted by the *Requirement of article 6*, precisely paragraph 6 which stipulates that “seafarers shall not be required to hold a visa” for shore leave. Panama is considering though, the possibility of ratifying the convention. The same cannot be said for the USA at this point in time.

In addition to the five factors mentioned, another probable reluctance to ratifying C185 is section 3G of the FAL 1965 (IMO, 2016, p.24), which reinforces C185 with similar

provisions. Thus far, the FAL 1965 has been ratified by 120 countries, 43 of which are Members of C108 and 26 are Members of C185. This makes 51 other countries obligated to give shore leave to seafarers without visas. These countries may be satisfied with the FAL 1965 and do not feel pressured to ratify another convention with similar objectives.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Research conclusion and outlook for the convention

It has been a long road for C185. Updated from C108, the new instrument was to respond to growing consciousness of insecurity triggered by major life changing events. Unfortunately, despite being generally accepted, the convention has not been widely ratified as expected and Members of the convention are faced with challenges in its implementation.

The main difference of C185 from C108 is the introduction of biometrics as an advanced means of identification and the addition of three annexes. In order to successfully implement C185, two main requirements have to be met:

1. the proper use of the prescribed biometric technology; and
2. putting in place the right infrastructure for identification, verification, production and securing the production process of SIDs.

The convention underwent its first amendment in 2016 in order to align the biometric requirement with the seventh edition of Doc 9303, a necessary change to facilitate implementation of C185.

The requirements of the convention are definitely feasible and the outlook good. Apart from 2003 and 2009, C185 has been ratified by at least one country each year including 2018. Putting it in perspective, e-passports and e-official travel documents, similar to e-SIDs, have been around for a while now since they were first internationally introduced in 2006 by Doc 9303. So far, more than 100 countries are issuing these e-documents, increasing the probability for these countries to also ratify C185.

There are, nonetheless, challenges which include financial and technical complexities, legislative and administrative issues, few ratifications and restrictive access to shore by some port States. These difficulties can be surmounted with time and real commitment. As the popular saying goes “Rome was not built in a day”.

6.2 Recommendations

6.2.1 Mitigating financial and technical complexities

Section 4.3 of chapter 4 of this dissertation provides eight possible solutions to resolve financial and technical bottlenecks to ratification and implementation of C185. From the eight, I recommend three worth pursuing because they can be more easily attained, provide more autonomy and better control for securing the SIDs. Developed, developing and under-developed countries can find a solution among these three.

6.2.1.1 Production of SIDs by e-passport issuing authority in collaboration with e-SID issuing authority

This option should first be considered by countries already issuing e-passports and/or participating in the ICAO PKD as it prevents them from spending twice for the same services. The responsibility between the authorities can be broken down into the following issuing processes:

- a. Receiving applications and taking biometrics of applicants;
- b. Verification of identity, citizenship/residence and authenticity of the applicant;
- c. Recording of data by receiving authority and passing file to another authority for authorization;
- d. Security checks such as police records, work experience or maritime school attended could be carried out;
- e. Production of SIDs including digital signatures, data writing and protection of SID;
- f. Printed SID checked for errors;
- g. Entry of SID data into NED;
- h. SID issued to seafarer.

These responsibilities be can be divided as follows:

- Processes a-d, g & h: e-SID authority;
- Processes e & f: e-Passport authority.

Further internal arrangements such as logistics and cost of the SIDs can be worked on between the authorities.

6.2.1.2 PPP

This option is good for countries that are not yet producing e-passports and are not going to do so anytime soon. The main advantage is that the SID issuing authority can provide services it would normally not be able to achieve on its own.

The issuing authority may decide to delegate all or part of the issuing processes to the private partner but irrespective of the type of PPP entered into, I recommend that the public entity has control over the CSCA for security reasons.

6.2.1.3 Regional SID system

Countries with few seafarers or non e-passport issuing States can benefit from this type of cooperation. Ideally, the countries should not be far apart geographically in order to reduce the cost of transportation. Participating countries will contribute towards the development and running of an SID system. Together, they will spend less to obtain a PKI and to participate in the PKD. With regards to the processes outlined in 6.2.1.1, each country will be responsible for processes a-d, g & h. In addition to this, the host country will be responsible for processes e & f and the running of a regional electronic database. A regional focal-point center could be optional. The cost of the SIDs may however vary for each country if the cost of transporting the documents, for instance, is added.

6.2.2 Promoting confidence

MRTDs and MROTDs are internationally recognized documents which provide identification to nationals traveling in and out of their countries. This has been facilitated by security features developed over the years for the documents by the ICAO and made

mandatory for all countries. The e-SID has been upgraded to these standards and in order to instill mutual confidence in the documents issued by Members, the ILO has put in place a mandatory independent evaluation and reporting system from which a list of compliant Members is published. Before the 2016 amendments, the Russian Federation was the only country which met the required standards. Members are therefore encouraged to take those evaluations seriously and make regular reports to the ILO. This list could have a positive impact in facilitating shore leave for seafarers who are nationals of compliant Member States.

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APPENDICES

Appendix I: Data Classification

N°	Country	Meeting 2010	Meeting 2015	Meeting 2016	Total	Party to the convention C108/C185?	Difficulties encountered / Observations	Obstacles to ratification/Observations
01	Angola	Yes	No	No	01	C108/1976		
02	Antigua and Barbuda	Yes	No	No	01	C108/1983		
03	Azerbaijan	Yes	No	No	01	C108/1992 C185/2006		
04	Bahamas	Yes	No	No	01	C185/2006		
05	Bangladesh	Yes	No	Yes	02	C185/2014	- Shore leave being denied to its seafarers in some ports based on the fact that Bangladesh was not included on the list of States that had ratified C108 (2016b, P.9).	
06	Belarus	Yes	No	No	01	C108/1994		
07	Brazil	No	Yes	Yes	02	C108/1963 C185/2010	- Government was willing to promote collaboration between the national visa, customs and immigration authorities (2015b, p.5).	

08	Bulgaria	Yes	No	No	01	C108/1977		- Financial implications of the implementation of C185 (2010b, p.5).
09	Cambodia	No	No	Yes	01	/		
10	Cameroon	Yes	No	Yes	02	C108/1982		
11	Canada	Yes	Yes	Yes	03	C108/1967		<ul style="list-style-type: none"> - Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs (2010b, p.3); - Improving its SID issuance system to the standards of C185 even though it is not a party to the convention. (2015b, p.4).
12	Central African Republic	Yes	No	No	01	/		
13	Chile	No	No	Yes	01	/		
14	China	Yes	Yes	Yes	03	/		
15	Congo, Republic of	Yes	Yes	No	02	C185/2014		
16	Croatia	No	Yes	No	01	C185/2011		

17	Cuba	No	Yes	No	01	C108/1975		
18	Denmark	No	Yes	Yes	02	C108/1970		- Had new visa exemption rules for non-Danish seafarers who possessed valid SIDs in accordance with C108 and C185 in 2014 (2015b, p.6, 14).
19	Egypt	Yes	No	No	01	/		- Needed financial support to set up focal point centres; - Technical support on hardware, training, communication and infrastructure (2010b, p.6).
20	France	Yes	Yes	Yes	03	C108/1967 C185/2004	- Delayed implementation due to technical and financial considerations (2010b, p.3; 2015b, p.7); - Implementation challenges linked to the need to adopt related legislation (2015b, p.7).	

21	Greece	Yes	No	No	01	C108/1963		<ul style="list-style-type: none"> - Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs (2010b, p.3); - Financial implications of technical development were significant; - Discriminatory that seafarers needed a SID in addition to a national passport for travelling while other persons could do so only with their passport(2010b,p.4)
22	Georgia	No	No	Yes	01	C185/2015		
23	Guinea, Conakry	No	No	Yes	01	/		
24	India	No	Yes	Yes	02	C108/2005 C185/2015		
25	Indonesia	Yes	Yes	Yes	03	C185/2008	<ul style="list-style-type: none"> - Major port States that voted in favour of the adoption of C185 restricted access to their 	

							territories to seafarers holding valid SIDs (2010b, p.3)	
							- Challenges in implementation due to sustainability and reliability of the source of equipment for continued issuance of SIDs (2015b, p.4)	
26	Iran	Yes	No	Yes	02	C108/1967		
27	Iraq	Yes	No	No	01	C108/1986		
28	Ireland	No	No	Yes	01	C108/1961		
29	Italy	Yes	No	No	01	C108/1963		
30	Japan	No	No	Yes	01	/		
31	Kazakhstan	Yes	Yes	No	02	C185/2010		
32	Kenya	Yes	No	No	01	/		
33	Korea, Republic of	Yes	No	Yes	02	C185/2007	- Major port States that voted in favour of the adoption of C185 restricted access to their territories to	

							seafarers holding valid SIDs (2010b, p.3)	
							- Delayed production of SIDs principally because major port States had not ratified the convention (2010b, p.16)	
34	Latvia	Yes	Yes	Yes	03	C108/1993		- Not envisaging ratification essentially due to cost concerns (2015b, p.14)
35	Lebanon	Yes	No	No	01	/		
36	Liberia	Yes	Yes	Yes	03	C108/1981		
37	Luxembourg	Yes	No	Yes	02	C108/1991 C185/2011		
38	Madagascar	No	Yes	Yes	02	C185/2007	- Their seafarers denied shore leave despite issuing SIDs under C185. Had asked for technical assistance from ILO in this regard with no favourable reply. Production was suspended in light of ongoing	

							amendments (2016b, p.9)	
39	Malaysia	Yes	No	Yes	02	/		- Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs (2010b, p.3)
40	Marshall Islands	Yes	Yes	Yes	03	C185/2011		
41	Mauritania	No	No	Yes	01	/		
42	Mexico	Yes	No	No	01	C108/1961		
43	Morocco	No	No	Yes	01	C108/2001		
44	Mozambique	Yes	No	Yes	02	/		
45	Namibia	Yes	No	No	01	/		- Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs but not in possession of a visa (2010b, p.3, 4); - Needed technical assistance to set up

								focal point (2010b, p.6)
								- Discriminatory that seafarers needed a SIDs in addition to passports while other travelers only needed a passport (2010b, p.6)
46	Nepal	Yes	No	No	01	/		
47	Netherlands	No	No	Yes	01	/		
48	Nigeria	Yes	No	Yes	02	C185/2004		
49	Norway	Yes	Yes	Yes	03	C108/1970		<div>- Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs (2010b, p.3)</div> <div>- Requirement for visas by some countries a barrier to ratification (2015b, p.14);</div> <div>- Low number of countries currently issuing SIDs (2015b, p.7);</div>

								- Objective to issue SIDs compliant with C185 without formal ratification (2015b, p.14).
50	Panama	Yes	Yes	Yes	03	C108/1970		- Require visas before entry however, considering ratification (2015b, p.5)
51	Peru	No	Yes	No	01	/		
52	Philippines	Yes	Yes	Yes	03	C185/2012	- Had experienced delay in implementation due to administrative and budgetary constraints (2015b, p.7).	- Hindered by technical and legal issues before ratification (2010b, p.5).
53	Poland	No	No	Yes	01	C108/1993		
54	Portugal	Yes	No	No	01	C108/1967		
55	Russian Federation	Yes	Yes	Yes	03	C108/1969 C185/2010	- Major port States that voted in favour of the adoption of C185 restricted access to their territories to seafarers holding valid SIDs (2010b, p.3)	

56	Saudi Arabia	No	No	Yes	01	/		
57	Senegal	Yes	Yes	No	02	/		
58	Singapore	Yes	No	No	01	/		
59	South Africa	Yes	Yes	Yes	03	/		
60	Spain	Yes	Yes	Yes	03	C108/1971 C185/2016		
61	Switzerland	Yes	No	Yes	02	/		- Not considering ratification of the convention as it is a landlocked State and the few Swiss seafarers would not justify the investment (2010b, p.12)
62	Tanzania, United Rep of	Yes	No	No	01	C108/1962 C185/2017		
63	Thailand	No	No	Yes	01	/		
64	Tunisia	Yes	No	Yes	02	C108/1959 C185/2016		
65	United Kingdom	Yes	Yes	Yes	03	C108/1964		- Obstacle to ratification lay in the high cost of producing SIDs and their verification and low benefit associated with few

								ratifications (2015a, p.5)
66	United States	Yes	Yes	Yes	03	/		- Concerns over article 6 continue to be a barrier to ratification (2010b, p.6)
67	Uruguay	Yes	No	No	01	C108/1973		
68	Vietnam	Yes	No	No	01	/		

KEY



Financial and Technical difficulties



Few ratifications



Restricted access to shore by major port States



Requirements of Article 6



Legislative and Administrative issues



Visa requirement

Appendix II: Ratifications of C185

Ratifications of C185 - Seafarers' Identity Documents Convention (Revised), 2003
(No. 185)

Date of entry into force: 09 Feb 2005

35 Ratifications

Denounced: 0

Number

Country	Date	Status	Note
Albania	11 Oct 2007	In Force	
Azerbaijan	17 Jul 2006	In Force	
Bahamas	14 Dec 2006	In Force	
Bangladesh	28 Apr 2014	In Force	
Bosnia and Herzegovina	18 Jan 2010	In Force	
Brazil	21 Jan 2010	In Force	
Congo	14 May 2014	In Force	
Croatia	06 Sep 2011	In Force	
France	27 Apr 2004	In Force	
Georgia	03 Feb 2015	In Force	
Hungary	30 Mar 2005	In Force	
India	09 Oct 2015	In Force	
Indonesia	16 Jul 2008	In Force	
Jordan	09 Aug 2004	In Force	
Kazakhstan	17 May 2010	In Force	
Kiribati	06 Jun 2014	In Force	
Korea, Republic of	04 Apr 2007	In Force	
Lithuania	14 Aug 2006	Not in force	Provisional Application (Article 9)
<i>On 14 August 2006, the Government notified that it provisionally applies the Convention, in accordance with its Article 9.</i>			
Luxembourg	20 Sep 2011	In Force	

Country	Date	Status	Note
<u>Madagascar</u>	06 Jun 2007	In Force	
<u>Maldives</u>	05 Jan 2015	In Force	
<u>Marshall Islands</u>	24 Aug 2011	In Force	
<u>Moldova, Republic of</u>	28 Aug 2006	In Force	
<u>Montenegro</u>	27 Apr 2017	In Force	
<u>Myanmar</u>	16 Jan 2018	In Force	
<u>Nigeria</u>	19 Aug 2004	In Force	
<u>Pakistan</u>	21 Dec 2006	In Force	
<u>Philippines</u>	19 Jan 2012	In Force	
<u>Russian Federation</u>	26 Feb 2010	In Force	
<u>Spain</u>	26 May 2011	In Force	
<u>Sri Lanka</u>	02 Dec 2016	In Force	
<u>Tanzania, United Republic of</u>	11 Oct 2017	In Force	
<u>Tunisia</u>	19 May 2016	In Force	
<u>Turkmenistan</u>	12 Feb 2014	In Force	
<u>Vanuatu</u>	28 Jul 2006	In Force	
<u>Yemen</u>	06 Oct 2008	In Force	

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Appendix III: Ratifications of C108

Ratifications of C108 - Seafarers' Identity Documents Convention, 1958 (No. 108)

Date of entry into force: 19 Feb 1961

64 Ratifications

Denounced: 10

Number

Country	Date	Status	Note
Algeria	13 Aug 1991	In Force	
Angola	04 Jun 1976	In Force	
Antigua and Barbuda	02 Feb 1983	In Force	
Azerbaijan	19 May 1992	Not in force	Automatic Denunciation on 17 Jul 2007 by convention C185
Barbados	08 May 1967	In Force	
Belarus	28 Feb 1994	In Force	
Belize	15 Dec 1983	In Force	
Brazil	05 Nov 1963	Not in force	Automatic Denunciation on 21 Jan 2011 by convention C185
Bulgaria	26 Jan 1977	In Force	
Cameroon	29 Nov 1982	In Force	
Canada	31 May 1967	In Force	
Cuba	30 Dec 1975	In Force	
Czech Republic	06 Aug 1996	In Force	
Denmark	26 Oct 1970	In Force	

Country	Date	Status	Note
Djibouti	03 Aug 1978	In Force	
Dominica	28 Feb 1983	In Force	
Estonia	11 Dec 1996	In Force	
Fiji	19 Apr 1974	In Force	
Finland	26 Oct 1970	In Force	
France	08 Jun 1967	Not in force	Automatic Denunciation on 27 Apr 2005 by convention C185
Ghana	19 Feb 1960	In Force	
Greece	09 Oct 1963	In Force	
Grenada	09 Jul 1979	In Force	
Guatemala	28 Nov 1960	In Force	
Guinea - Bissau	21 Feb 1977	In Force	
Guyana	08 Jun 1966	In Force	
Honduras	20 Jun 1960	In Force	
Iceland	26 Oct 1970	In Force	
India	17 Jan 2005	Not in force	Automatic Denunciation on 08 Oct 2016 by convention C185
Iran, Islamic Republic of	13 Mar 1967	In Force	
Iraq	23 Sep 1986	In Force	
Ireland	17 Jun 1961	In Force	
Italy	12 Aug 1963	In Force	
Kyrgyzstan	31 Mar 1992	In Force	
Latvia	08 Mar 1993	In Force	
Liberia	08 Jul 1981	In Force	
Lithuania	19 Nov 1997	In Force	

Country	Date	Status	Note
Luxembourg	15 Feb 1991	Not in force	Automatic Denunciation on 19 Sep 2012 by convention C185
Malta	04 Jan 1965	In Force	
Mauritius	02 Dec 1969	In Force	
Mexico	11 Sep 1961	In Force	
Moldova, Republic of	23 Mar 2000	Not in force	Automatic Denunciation on 28 Aug 2007 by convention C185
Morocco	15 Oct 2001	In Force	
Norway	26 Oct 1970	In Force	
Panama	19 Jun 1970	In Force	
Poland	15 Mar 1993	In Force	
Portugal	03 Aug 1967	In Force	
Romania	20 Sep 1976	In Force	
Russian Federation	04 Nov 1969	Not in force	Automatic Denunciation on 26 Feb 2011 by convention C185
Saint Lucia	14 May 1980	In Force	
Saint Vincent and the Grenadines	21 Oct 1998	In Force	
Seychelles	06 Feb 1978	In Force	
Slovenia	30 Jan 2003	In Force	
Solomon Islands	06 Aug 1985	In Force	

Country	Date	Status	Note
Spain	05 May 1971	Not in force	Automatic Denunciation on 25 May 2012 by convention C185
Sri Lanka	24 Nov 1995	Not in force	Automatic Denunciation on 02 Dec 2017 by convention C185
Sweden	26 Oct 1970	In Force	
Tajikistan	26 Nov 1993	In Force	
Tanzania. Tanganyika	26 Nov 1962	In Force	
Tunisia	26 Oct 1959	Not in force	Automatic Denunciation on 19 May 2017 by convention C185
Turkey	07 Feb 2005	In Force	
Ukraine	17 Jun 1970	In Force	
United Kingdom	18 Feb 1964	In Force	<i>In conformity with Article 1, paragraph 2, of the Convention, fishermen shall not be regarded as seafarers for the purpose of this Convention.</i>
Uruguay	28 Jun 1973	In Force	

Appendix IV: Sample of a Seafarers' Identity Document



Sample of a card format of the seafarers' identity document. Credit of the Maritime Administration of the Republic of Korea. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_177102.pdf